## OAK RIDGE NATIONAL LABORATORY

MANAGED BY UT-BATTELLE FOR THE U.S. DEPARTMENT OF ENERGY

SNS

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## Weekly update on DTL #1+ #3; week 02

12 DTL-3 drift tubes (PMQ or empty) were e-beam weld repaired, and shipped to CMI for final machining, leak checking, and cleanup. The remaining 17 are forecast to be completed this week (Milestone #1). We continue to fabricate DTL-3 and DTL-1 top hats. Repaired iris/RL waveguide for Tank-3 is complete except for final machining of window-side flange. [Book-keeping change: The 4 existing DTL-3 EMD drift tubes will be used during initial cavity conditioning so they are being repaired, and not rebuilt. Table has been adjusted accordingly.]

Diverter braze preps were started on 20 DTL-1 drift tube bodies. Water channel e-beam welds were completed on the 4 DTL-1 new-built drift tube bodies. Rough machining and inspection were completed on Iris/RL waveguide for Tank-1; unit is at plating shop. Machining of the rebuilt drift tube diverters (Milestone #1) were delayed another week, pending a decision on implementing a design improvement. The DTL Project Engineer has personally assumed responsibility to complete this milestone within the next week, before it becomes a critical path issue.

Milestone description	Due Date	Number total	Number or % complete	Delta last week
DTL 3 DT's repair	Feb 28 <sup>th</sup> '03	33	4	+4
DTL 3 DT's rebuilt	Feb 28 <sup>th</sup> '03	0	0	-4
DTL 3 DT's new built	Feb 28 <sup>th</sup> '03	0	0	0
DTL 3 other parts	Feb 28 <sup>th</sup> '03	100 %	89%	+1%
All DTL 3 parts	Feb 28 <sup>th</sup> '03	100 %	25% / IPS marker	0
shipped			DTLINK51	
DTL 3 installation	April 16 <sup>st</sup> '03	100 %	? /IPS marker DTL045	0
DTL 1 DT's repair	April 1 <sup>st</sup> '03	7	7	0
DTL 1 DT's rebuilt	April 1 <sup>st</sup> '03	48	0	0
DTL 1 DT's new built	April 1 <sup>st</sup> '03	4	0	
DTL 1 other parts	April 1 <sup>st</sup> '03	100 %	77%	0
All DTL 1 parts	April 1st '03	100 %	23%/ IPS marker DTL055	0
shipped				
DTL 1 installation	May 21 <sup>th</sup> '03	100 %	? / IPS marker DTLINK31	?

In Oak Ridge the DTL-3 tanks were moved to the site on January 8 and set in place in the tunnel on January 9. The move went smoothly from start to finish. Initial alignment and preparation for installation of drift tubes in the tunnel are ongoing. Connection of the water cooling system for operational test began. In parallel testing of an epoxy proposed for bonding the cooling tubes to the DTL tanks has been completed.



Picture shows DTL tank 3 in the tunnel in its final position. In the background the Front End Systems.

Table 16 of the recovery plan. Tank 3 milestones

MS	Activity	Complete	Actual
1	Repaired drift tubes, repair welds complete	13-Jan-03	
2	Post-couplers, tips welded to stems	27-Jan-03	3-Jan-03
3	Waveguide-iris transition, finish machining complete	27-Jan-03	
4	Top hat finish machining complete	31-Jan-03	
5	EMD drift tube repair complete	5-Feb-03	
6	Post-couplers, finish machining complete	18-Feb-03	
7	Drift tubes, field, vacuum, flow & pressure tests complete	21-Feb-03	
8	All DTL components delivered to ORNL	28-Feb-03	

Table 17 of the recovery plan. Tank 1 milestones

MS	Activity	Complete	Actual
1	Rebuilt drift tubes, 1st 10 diverters machined	7-Jan-03	
2	Repaired drift tubes, finish machining complete	14-Jan-03	6-Jan-03
3	Post-coupler tips welded to stems	3-Feb-03	
4	Waveguide-iris transition assembly braze complete	7-Feb-03	
5	Top hat finish machining complete	7-Feb-03	
6	Rebuilt drift tubes, all stems welded	11-Feb-03	
7	Repaired drift tubes, final unit delivered to ORNL	17-Feb-03	
8	Low-energy end-wall tuning-ring weld complete	5-Mar-03	
9	All DTL components delivered to ORNL	1-Apr-03	